

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Claims 1-21 have been canceled, claims 22-30 have been added by this amendment. Claims 22-30 are pending.

Claims 13-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sako (US 5,148,422). This rejection is traversed and is inapplicable to new claims 22-30 for the following reasons.

Claims 22 and 23 recite, in part, a multiplexer operable to time division multiplex a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data included in each frame in this order, to produce a data stream including a plurality of frames, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame.

Likewise, method claims 28 and 29 recite, in part, time-division-multiplexing a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data included in each frame in this order, to produce a data stream including a plurality of frames, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame.

Claim 24 recites a receiving apparatus comprising a receiver operable to receive a digital modulated signal including a data stream having a plurality of frames, wherein each frame of the data stream has a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data, and is time-division-multiplexed in this order, wherein the

first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame. Claim 24 also recites a demodulator operable to demodulate the received digital modulated signal to produce a demodulated signal according to the frame sync data, the first block sync data and second block sync data.

Likewise, claim 30 recites a receiving method comprising receiving a digital modulated signal including a data stream having a plurality of frames, wherein each frame of the data stream has a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data, and is time-division-multiplexed in this order, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame. Claim 30 further recites demodulating the received digital modulated signal to produce a demodulated signal according to the frame sync data, the first block sync data and second block sync data.

Applicants submit that according to the present invention the TDM transmission is carried out in the time sequence as shown in the Fig. 36, such that the block sync appears after the frame sync. Thus, in the receiver side, the leading edge of the frame is detected by the frame sync, and at the same time, the frame synchronization is accomplished by the frame sync. Then, by the block sync, the synchronization of the block data can be accomplished efficiently. Thus, the reproduction can be carried out immediately upon receipt of the data stream of the TDM transmission.

In contradistinction, according Sako (US 5,148,422), the magneto-optical recording and reproducing apparatus uses identifiers "11" and "10" for identifying either the frame or the block (see column 4, lines 52-57). Such identifiers are inserted in the block data to enable the

detection between the block and the frame during the reproduction of the recorded data. More specifically, during the reproduction, the address recorded with the identifier is read to detect whether the read data is the frame or the block and, thereafter, the synchronization is accomplished by the block sync.

According to Sako, it is possible to read only the identifiers appearing after the block syncs due to the feature of the magneto-optical recording and reproducing apparatus. Once the identifier "11" for identifying the frame is read, the block sync located immediately before the identifier "11" is used for taking the frame synchronization. This is possible, because in Sako, it is not necessary to align the data in time sequence order as in the TDM transmission.

Furthermore, according to Sako, since the block sync and the frame sync are not provided separately as in the present invention, it is necessary to provide the identifier for identifying between the frame and the block in every block data, resulting in less transmission efficiency. Furthermore, it is necessary to provide an analyzing process to analyze the identifier in each data block.

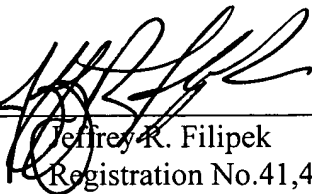
In this respect, according to the present invention, the frame sync can be used not only for taking the frame synchronization, but also for detecting the leading edge of the frame. Thus, it is not necessary to provide the identifier as in Sako.

Therefore, Sako does not teach nor disclose the outstanding features recited in claims 22-30 of the present application.

In view of the above amendments and remarks, it is submitted that the application is in condition for allowance. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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